District 08 Mobility Performance Report

2018 Fourth Quarter

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
DIVISION OF OPERATIONS
TMS SUPPORT
January 28, 2019

District 08 Mobility Performance Report

2018 Fourth Quarter

EXECUTIVE SUMMARY

Overview

Caltrans District 8 covers approximately 28,650 square miles of land, making it the largest district in California. District 8 consists of two counties; San Bernardino and Riverside. Both counties are in Southern California and part of the Inland Empire. Riverside County has an estimated population of 2.4 million residents while San Bernardino County is estimated at 2.2 million residents. With a total of 4.6 million residents, District 8 comprises of twelve percent of California's total population.

The quarterly Mobility Performance Report compares the data from the current quarter with over a year ago as well as the previous quarter, for the following performance measures:

- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD)
- Lost Lane Miles (LLM)
- Delay by County and Route
- Detector Health
- Bottleneck Locations

Vehicle Detector Stations installed on urban-area freeways are continuously collect data and are strategically placed at locations where congestion is regularly experienced. The MPR uses the data collected from Caltrans Performance Measurement System (PeMS) to produce this report and conduct traffic studies. This report presents congestion information at two speed thresholds: delay from vehicles traveling below 35 miles per hour (mph), and delay from vehicles traveling below 60 mph. The 35-mph threshold represents severe congestion, while delay at 60 mph represents all congestion. These thresholds are set by Caltrans and are based upon engineering experience and District input.

FINDINGS

In the fourth quarter, at the 35mph speed threshold, Riverside County exhibited 1.7 million vehicle hours of delay followed by San Bernardino County at 1.37 million. Total delay in District 8 equaled 3.1 million VHD for 35 mph speed threshold. This was a 7.5 percent increase from the previous quarter, and a 11.7 percent increase when compared to the same quarter over an year ago. The 60mph speed threshold saw a similar trend, during the fourth quarter of 2018, total delay equaled 8.2 million VHD, which was an increase in delay by 4.3 percent from last quarter and a 5.2 percent increase in delay for the same quarter over a year ago.

Vehicle Miles Traveled (VMT) during the fourth quarter was 6.7 billion miles, which was a 9.1 percent decrease when compared to VMT from a year ago and a 7.2 percent decrease from the previous quarter.

The busiest day of the week as far as congestion for the fourth quarter was Friday with 134,000 hours of delay for speed under 60 mph followed by Thursday with 127,000 hours and Tuesday with 106,000 hours.

Top Ten AM Bottlenecks @60mph for the 2018 Fourth Quarter:

Rank	County	City	Freeway	Approximate Location	Period	Begin CA Postmile	Average Extent (miles)	Total Delay (hours)	Average Duration (hours)
1	Riverside	Corona	SR91-W	Green River	AM	R.995	4.32	236,196.2	3.89
2	Riverside	Corona	SR71-S	Rte 71/91 (s/o Prado Dam)	AM	2.5	3.47	44,016.3	3.38
3	Riverside	Corona	I15-N	Weirick Rd	AM	35.878	2.80	33,527.7	3.28
4	Riverside	Riverside	SR60-W	west of Main Street	AM	11.6	3.32	31,277.4	2.58
5	Riverside	Corona	SR91-W	Lincoln	AM	5.28	1.40	30,122.6	2.76
6	Riverside	Riverside	I215-N	Central/Watkins	AM	39.643	1.07	28,688.6	3.32
7	Riverside	Riverside	I215-S	Center Street	AM	44.908	2.56	23,218.4	1.83
8	San Bernardino	Upland	I210-W	Carnelian	AM	4.5	3.86	22,879.5	1.38
9	Riverside	Riverside	SR91-W	Pierce	AM	10.724	1.56	21,265.3	2.62
10	Riverside	Moreno Valley	I215-N	60/215 Separation	AM	R38.4	1.17	21,151.6	2.58

Top Ten PM Bottlenecks @60mph for the 2018 Fourth Quarter

Rank	County	City	Freeway	Approximate Location	Period	Begin CA Postmile	Average Extent (miles)	Total Delay (hours)	Average Duration (hours)
1	San Bernardino	Upland	I210-E	Milliken	PM	7.73	5.52	64,141	2.28
2	San Bernardino	Fontana	I10-E	Fontana Rest	PM	13.8	2.62	62,474	3.31
3	San Bernardino	Rancho Cucamonga	I15-N	4th Street	PM	3.2	1.16	61,362	4.23
4	San Bernardino	Victorville	I15-N	Oakie Flats	PM	R17.401	3.11	44,196	1.89
5	San Bernardino	Ontario	I10-E	Haven Ave	PM	8.22	2.36	41,515	1.91
6	Riverside	Moreno Valley	I215-S	north of Box Springs Rd	PM	40.382	3.30	41,347	2.44
7	Riverside	Unincorporated	I215-S	Van Buren Blvd	PM	R33.989	2.64	38,161	2.50
8	Riverside	Norco	I15-S	north of Fourth St over crossing	PM	44.694	9.88	37,866	3.01
9	Riverside	Moreno Valley	SR60-E	Pigeon Pass	PM	14.509	2.56	37,174	2.92
10	Riverside	Riverside	SR91-W	Pierce	PM	10.724	1.68	36,140	3.60

PROJECT STATUS

The following District 8 projects which are separated by county are currently in construction for the year of 2018. These projects will relieve congestion in District 8, however during the construction phase there might be an increase in delay during off-peak periods due to lane closures.

Riverside County:

RIV – Rte. 215: Location – Rte 215 Interchange at Scotts Road, EA: 0A0204
Postmile R14.80 to 16.20 – Interchange improvement at Scotts Road city of Menifee.

RIV - Rte. 10: Location - City of Indio at Jefferson St, EA: 475204
Postmile 51.70 to 53.10 - Demolish existing bridge and northbound Indio Boulevard overcrossing and replace with new six-lane bridge.

RIV - Rte 15: Location - From San Diego county line to 15/91 separation, EA: 0G7704
Postmile R0.00 to 41.80 - Install New Fiber Optic infrastructure on Rte 15 from PM 0.00/41.80 and upgrade newly installed wireless vehicle detection stations. Connect all the existing TMS elements to the newly installed Fiber Optic infrastructure

RIV - Rte 15,79: Location - Temecula @ I-15/SR-79 South Interchange, EA: 432304
Rte 15 Postmile 3.00 to 4.00, Rte 79 Postmile 19.60 to 19.90 – Realign and reconstruct onramp and offramp.

RIV - Rte 15: Location - Interstate 15/Cajalco Road Interchange, EA: 0J6104
Postmile 36.40 to 37.60 - Interchange Improvements & Reconstruction

RIV – Rte 15: Location – SR74 to SR-60 and I-215 to SR-74, EA: 0J080
I-15 Corridor Improvement Project to add two Toll Express lane each direction from Cajalco Road to State Route 60, widen bridges and add sound wall.

RIV – Rte 60: Location – Highway 60 at Potrera Blvd, City of Beaumont, EA: 34141
Postmile 28.70 to 30.20, New Bridge and Highway widening

RIV – Rte 15: Location – I-15/SR-79, EA: 43230
Postmile 3.0 to 4.0, Interchange Improvement @ SR-79(Front St) and I-15.

RIV – Rte 60: Location – Rte 60 from Milliken Ave to 91/215
Postmile 0.0 to R12.2, Replace wireless communication system with Fiber Optic Infrastructure.

RIV – Rte 15: Location Limonite Ave/I-15, EA: 0E1504
Postmile 46.70 to 49.70, Limonite Avenue at I-15 interchange Improvement Project, in city of Eastvale and Jurupa Valley.

San Bernardino County:

SBD - Rte 10: Location – San Bernardino County from Redlands to Orange St, EA: 0K2914
Postmile 30.90 to 33.30, Lane Replacement in San Bernardino County in Redlands from Orange Street Undercrossing to Redlands Blvd off-ramp undercrossing.

SBD - Rte 15: Location – Kenwood Ave to West Hesperia, EA: 0Q7404
Postmile 15.40 to 30.80, Lane Replacement on I-15 from 0.4 mile north of Kenwood Avenue to 0.3 mile south of West Hesperia OH

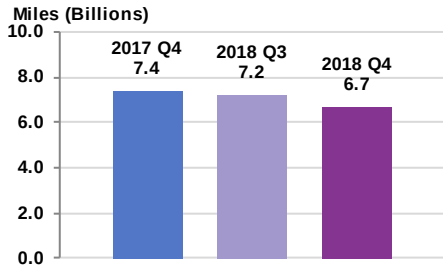
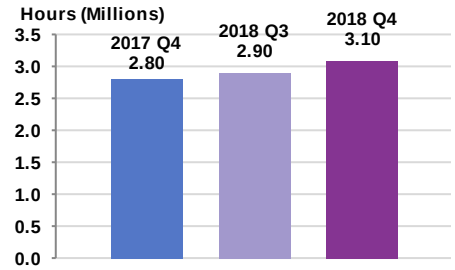
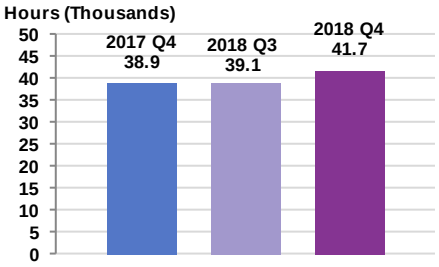
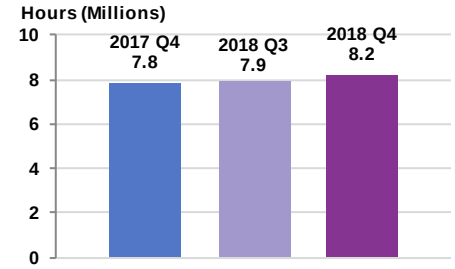
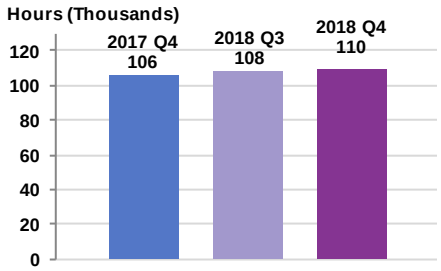
SBD - Rte 15: Location – Victorville from Mojave Dr to Stoddard Wells Rd, EA: 3555VA
Postmile 42.50 to 46.00, In San Bernardino County in Victorville from 0.5 Mile North of Mojave Drive to 1.5 Mile North of Stoddard Wells Road Overcrossing, Widen I-15, Reconstruct 3 IC'S, Construct 2 new BR and widen 3 BR

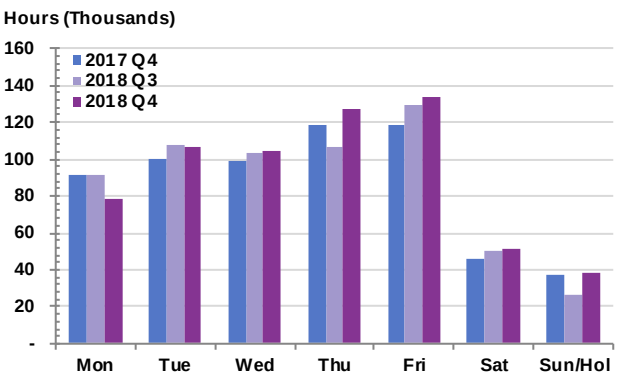
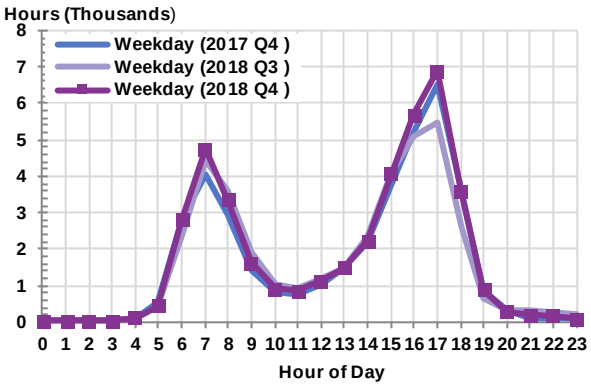
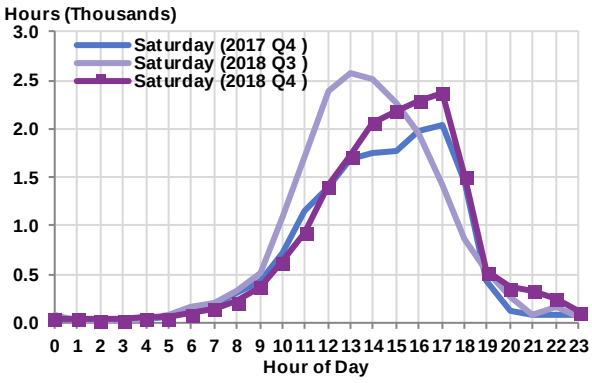
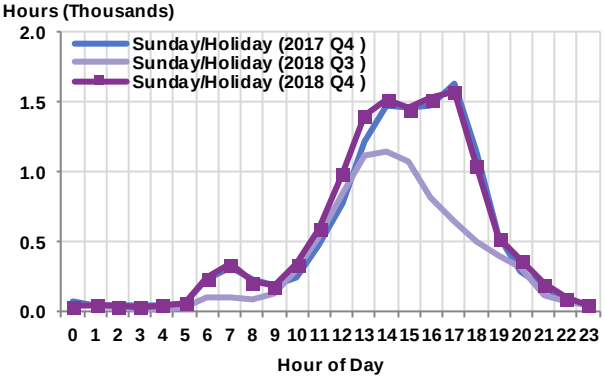
SBD – Rte Various Locations, San Bernardino and Riverside County, EA: 1C6304
Install Road Weather Information System and Modify Existing Electrical system

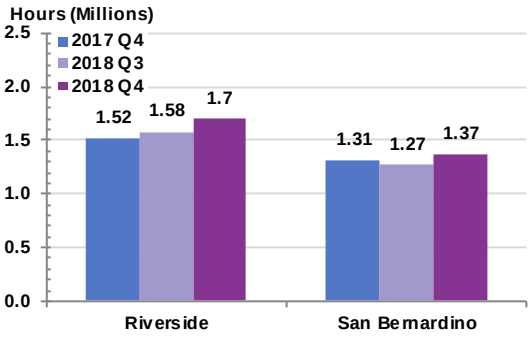
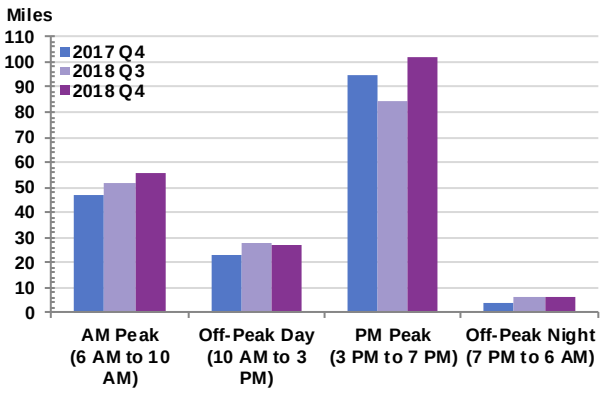
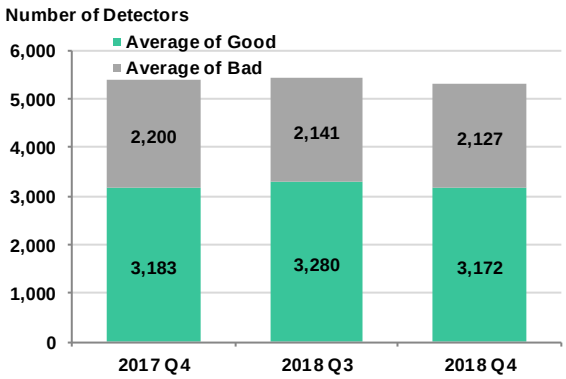
SBD – Rte 215: Locations – Rte 215/Barton Rd, EA: 0J070
Postmile 0.58/1.95, Project to reconstruct the existing I-215/Barton Rd Interchange.

SBD – Rte 210: Location – From Rte 10 to Rte 215, EA: 0E5514
Postmile 21.8 to 29.8, Install RMS, CCTV, VDS, CMS and Fiber Optic Backbone.

2018 Fourth Quarter Mobility Statistics District 8

Measure	Graph	Percentage Change	
		Over one year ago	Over last quarter
Vehicle Miles of Travel (VMT)		-9.1% ⇩	-7.2% ⇩
Total Vehicle Hours of Delay (VHD) at 35 mph		8.4% ⇧	7.5% ⇧
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph		7.2% ⇧	6.6% ⇧
Total Vehicle Hours of Delay (VHD) at 60 mph		5.2% ⇧	4.3% ⇧
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph		4% ⇧	2% ⇧

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago Monday -14.7%	Largest Magnitude Decrease over last quarter Monday -13.9%
		Largest Magnitude Increase over one year ago Friday 12.3%	Largest Magnitude Increase over last quarter Thursday 19.5%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago 5 AM -17.5%	Largest Magnitude Weekday Decrease over last quarter 9 AM -14.8%
		Largest Magnitude Weekday Increase over one year ago 7 AM 17.8%	Largest Magnitude Weekday Increase over last quarter 5 PM 25.3%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago 11 AM -19%	Largest Magnitude Saturday Decrease over last quarter 12 PM -40.7%
		Largest Magnitude Saturday Increase over one year ago 3 PM 22.9%	Largest Magnitude Saturday Increase over last quarter 5 PM 66%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/ Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago 6 PM -8.2%	Largest Magnitude Sun./Holiday Decrease over last quarter –
		Largest Magnitude Sun./Holiday Increase over one year ago 12 PM 26.7%	Largest Magnitude Sun./Holiday Increase over last quarter 5 PM 146.9%

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph		Largest Magnitude Decrease over one year ago –	Largest Magnitude Decrease over last quarter –
		Largest Magnitude Increase over one year ago Riverside 11.7% ↑	Largest Magnitude Increase over last quarter Riverside 7.5% ↑
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph		Largest Magnitude Decrease over one year ago –	Largest Magnitude Decrease over last quarter Off-Peak Day -3.4% ↓
		Largest Magnitude Increase over one year ago AM Peak 19.4% ↑	Largest Magnitude Increase over last quarter PM Peak 21.2% ↑
Average Number of Good and Bad Detectors		Change in Good over one year ago -0.3% ↓	Change in Good over last quarter -3.3% ↓
		Change in Bad over one year ago -3.3% ↓	Change in Bad over last quarter -0.6% ↓

Congestion by Route											
		Vehicle Hours of Delay at 35 mph			Difference 2018 Q4-2017 Q4		Difference 2018 Q4-2018 Q3		Rank		
Route	County	2017 Q4	2018 Q3	2018 Q4	Absolute	Percentage	Absolute	Percentage	2017 Q4	2018 Q3	2018 Q4
SR91	Riverside	549,386.6	565,963.9	623,202.1	73,815.5	13%	57,238	10%	1	1	1
I215	Riverside	339,758.9	440,496.8	566,015.4	226,256.5	67%	125,519	28%	5	2	2
I10	San Bernardino	396,181.8	386,928.6	453,871.8	57,690.0	15%	66,943	17%	3	4	3
I15	San Bernardino	381,892.2	377,871.3	378,431.8	-3,460.4	-1%	561	0%	4	5	4
I15	Riverside	462,625.6	400,419.0	281,177.3	-181,448.3	-39%	(119,242)	-30%	2	3	5
I210	San Bernardino	235,178.4	237,910.1	233,320.6	-1,857.8	-1%	(4,590)	-2%	6	6	6
SR60	San Bernardino	147,314.2	141,159.5	140,514.5	-6,799.7	-5%	(645)	0%	7	7	7
SR60	Riverside	96,890.3	104,488.7	134,114.5	37,224.2	38%	29,626	28%	8	8	8
I215	San Bernardino	94,447.7	68,611.1	99,668.6	5,220.9	6%	31,058	45%	9	9	9
SR71	San Bernardino	51,574.1	58,778.3	60,509.5	8,935.4	17%	1,731	3%	10	10	10
I10	Riverside	39,598.8	28,107.8	59,548.6	19,949.8	50%	31,441	112%	11	12	11
SR71	Riverside	33,789.7	41,567.8	35,424.7	1,635.0	5%	(6,143)	-15%	12	11	12
TOTALS		2,828,638	2,852,303	3,065,799	237,161	8.4%	213,497	7.5%			

***I-15 Riverside County –** The data shows a major decrease in delay which is incorrect. Currently on this route there are two major construction projects. Due to construction, our detector health has been fluctuating, thus a lot of delay has not been captured from the sensors on this route.